

REMARKS

The Office Action of October 10, 2006 and the references cited therein have been carefully considered. The indication that claims 6-12 contain allowable subject matter but are objected to since they depend from a rejected claim has been noted with appreciation.

In this Amendment, the application, including the specification and claims, has been amended to correct noted informalities, and the claims additionally have been amended to overcome the Examiner's objection to claims 6-12 and to more clearly and specifically define the invention. More specifically, a new independent claim 15 has been added and combines the limitations of original claims 1-5 and the initial feature of original claim 6, which has been amended to delete this feature. Claims 6-14 have been amended so that they correctly depend from claim 15 or a claim dependent thereon, and to clarify certain of the claim limitations. Moreover, a new independent claim 16, corresponding to a combination of original claims 1 and 6, and claims 17-22, corresponding to claims 7-12, respectfully, as originally filed, and dependent on claim 16, have been added. Finally claims 1 and 3 have been cancelled and claims 2, 4 and 5 have been amended so that they depend from claim 16.

The indication by the Examiner in paragraph 4 on page 2 of the Office action that the present application cannot base a claim for priority on an application filed in Europe on June 4, 2003 since the present application was filed more than one year after that date, has been noted and is not understood. The present application does not claim foreign priority of any application filed on June 4, 2003, but rather is a national stage application of an international patent application (PCT) filed on June 3, 2003, and claims the foreign priority of German Patent application No. 102 31 712.7, filed July 13, 2002. Since the PCT application was filed within one year of the German application and designates the United States of America, and since the present national stage application was timely filed, it is submitted that the claim for priority is correct and that the present application is entitled to the claimed foreign priority date of July 13, 2002.

As indicated above, new claims 16-22 correspond to claims 6-12 respectively as originally filed, with claim 16 corresponding to original claim 6 rewritten in independent form to include the limitations of original claim 1 from which claim 6 directly depended. Since the Office Action states that original claims 6-12 contain allowable subject matter and would be allowable if amended as indicated above, it is submitted that claims 16-22, as well as claims 2, 4 and 5 dependent on claim 16, are clearly in condition for allowance and such action is respectfully requested.

Reconsideration of claims 15 (corresponding to original claims 1-5 and part of original claim 6), 13 and 14 under 35 U.S.C 102(b) as being anticipated by either of the patents to Wyschogrod et al, Blackman et al or Tsang is respectfully requested.

As indicated above, new independent claim 15 is a combination of the features of original claims 1-5 and a portion of original claim 6, although the wording of the individual features is not exactly the same. However support for the individual features a) to g) is found in the present application, at least, as follows: Feature a) is found in claim 1; Feature b) is found in claim 1 and paragraphs [0002] and [0011]; Feature c) is found in claim 1 and paragraph [0011]; Feature d) is found in claims 2, 5 and 6 and paragraphs [0007] and [0009]; Feature e) is found in claims 2 and 4 and paragraph [0014]; Feature f) is found in claim 2 and paragraph [0014]; and Feature g) is found in claim 3 and paragraph [0007]. It is submitted that this combination of features is not taught or even made obvious by any of the three cited references.

In urging the above ground of rejection, the examiner has cited the content of the three references, but has not indicated how these contents correspond to the claimed features so as to negate novelty of the claimed invention. It is submitted that the following essential features of the claimed invention as defined in claim 15 are not found in any of the three cited references:

(1). According to the claimed present invention, all sensor tracks basically are considered to belong to one or several system tracks (meaning to one or several objects since a system always represents only one object) and are consequently also assigned to all system tracks, with the exception that they are not assigned only if it is clearly determined that the sensor track cannot be assigned to any of the system tracks because of its kinematics and attributes. All assigned sensor tracks are held in the system tracks until a decision is reached with certainty

that the sensor track does not belong to the associated system track, meaning the same object, because of the comparison criteria of kinematics and attributes (e.g. the dimensions for the spatial distance). The sensor track is separated from the system track, but only after this decision of "non belonging" has been made. This certain decision of "non-belonging" is never revised.

On the other hand, according to the three cited patent documents, a criterion of "belonging" is used for the track fusion. That is, a check is made to determine whether or not the sensor tracks can be assigned to the same object or system track. If we take into consideration that the sensor tracks supplied by the sensors not only represent "actual" objects such as ships, aerodynamic vehicles, etc., but also "supposed" objects such as wave crests, spray, rain, clouds, etc., a so-called "dense layer" is obtained in reality with many sensor tracks that in part are located directly adjacent to each other. The use of the fusion criteria of "belonging", as used in prior art, is problematic in that case. When pairing two tracks of two sensors, the probability is low that the pairing in actuality relates to the same object. If such pairings are made repeatedly, then the probability that the associated tracks actually represent a single object decreases strongly and the danger of acquiring a false target is relatively high. To correct this problem, the claimed method according to the present invention uses the criteria of "non-belonging", instead of "**belonging**" as in the prior art, whereby all sensor tracks are basically assigned to all system tracks that represent objects, except in cases where during the check of the sensor track against one or the other of the system tracks, a decision that is certain can be made that the sensor track does not belong to the respectively checked system track. Especially for dense layers of sensor tracks, such a decision of "non-belonging" that a sensor track cannot be assigned to one of the system track can be made **correctly** with a much higher probability than a decision of "belonging". According to the invention, the decision of "non-belonging", once made, is never revised. The probability of this decision being correct is therefore "1" or at least approaching "1." As a result, sensor tracks are already eliminated which, with a high probability or with high reliability, do not belong to one and the same object. The sensor tracks, for which this decision of non-belonging cannot be made, remain assigned to the other system tracks and thus all other objects, until the situation is clarified and a decision

of "non-belonging" can be made with absolute certainty for the further updated sensor tracks, which are connected to the other system tracks.

(2.) The manner of assigning sensor tracks to all system tracks requires a constant monitoring to determine whether the sensor tracks, which are constantly actualized with respect to kinematics and attributes, continue to belong to the associated system tracks following the actualization, or whether a certain decision can be made that they do not belong to the object, meaning the assigned system track, based on the changed kinematics and attributes.

(3) During the check according to Item (2.) above, the actualized sensor track is not checked against all system tracks, but only the system track to which it is assigned to monitor the continued assignment. The procedure for checking an actualized sensor track is thus shortened considerably and the process becomes faster.

(4). With present invention, newly developing sensor tracks, or sensor tracks separated from a system track because of a certain decision of "non-belonging", are compared to **all** system tracks. A new system track is formed with this sensor track only if a "non-belonging" to **all** system tracks has been made with certainty.

In summary, it is submitted that features d) to g) of claim 15 are not found in the cited prior art documents, so that the subject matter of independent claim 15 is allowable over each of the cited references to Wyschogrod et al, Blackman et al and Tsang under 35 U.S. C. 102(b).

Claims 13 and 14 are each dependent on claim 15, and therefore are allowable over each of the three cited references for at least the same reasons as that claim. Moreover claims 6-12 are dependent on claim 15 and thus are allowable over the three cited references for at least the same reasons as claim 15 discussed above, as well as the reason that corresponding claims were indicated as containing allowable subject matter in the last Office Action.

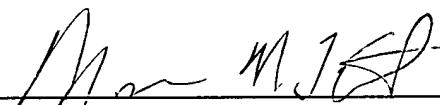
In view of the above amendments and for the above stated reasons, it is submitted that all of the pending claims, i.e., claims 2 and 4-22, are allowable over the prior art of record and are in condition for allowance. Such action and the passing of this application to issue are respectively requested.

If the Examiner is of the opinion that the prosecution of the application could be advanced by a personal interview, the Examiner is requested to telephone undersigned counsel to arrange for such an interview.

A request for the necessary two month extension of the period for filing this Amendment as well as a request to charge the necessary extension fee to undersigned counsel's deposit account is attached.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By: 

Norman N. Kunitz
Registration No. 20,586

FITCH, EVEN, TABIN & FLANNERY
One Lafayette Centre
1120 20th Street, NW
Suite 750S
Washington, DC 20036
Telephone: (202) 419-7000
Facsimile: (202) 419 -7007